Claim(s)

What is claimed is:

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1.   A method of targeting advertisements for use in an on-line query tool, comprising:

obtaining categories of documents that may be retrieved with the query tool, the categories having terms;

establishing super-categories for the documents;

mapping each of the categories to a super-category;

establishing a super-category term list for each term appearing in a super-category or a category, each element of a list including the terms in the super-category and the terms in the categories that are mapped to that super-category;

obtaining the terms in a user query;

obtaining the terms in the categories that are retrieved in response to the user query;

forming a modified query consisting of the terms in the user query and the terms in the categories; and

ranking the super-category lists to determine the most relevant super-category to the user query.

2.   A method of claim 1, further comprising:

matching advertisements to the super-categories; and

displaying an advertisement matched to the highest-ranked super-category.

3.   A method of claim 1, wherein ranking the super-categories comprises:

for the super-category term list corresponding to each term in the modified query, calculating the sum for all of the terms in the modified query of the product of the term frequency of the term in that super-category term list and the inverse document frequency of the term in the entire group of super-category term lists.

4.   A method of claim 3 wherein the term frequency is calculated based on the logarithm of the number of terms appearing in the super-category.

5.   A method of claim 3 wherein the inverse document frequency is calculated based on the Robertson's term frequency.